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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,397	12/28/2001	Konstantinos Poulakis	42120	8736

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EXAMINER

MUSSER, BARBARA J

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/019,397

Applicant(s)

POULAKIS, KONSTANTINOS

Examiner

Barbara J. Musser

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-26 and 28-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-26 28-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 16 and 30-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 16, it is unclear whether the slip preventer and the shaped strip are coextruded or whether the slip preventer is made of multiple layers which are coextruded onto the shaped strip.

Regarding claims 30 and 34, it is unclear whether the fastener received in the slot in line 5 is part of the strip or is part of the cushion cover since the word "received" implies placed in and not part of. For the purposes of examination, the fastening means are considered to be part of the slot, rather than part of the cushion cover.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11, 15, 17, and 28 are rejected under 35 U.S.C. 103(a) as being obvious over Esler(U.S. Patent 3,876,495).

Esler discloses a flexible cord for seats which has a core formed from polymer fibers which is covered in an extruded foam coating which reduces the slippage of the cord.(Col. 2, ll. 2-17; Col. 3, ll. 48-50; Col. 6, ll. 57) The material is capable of securing a cover to a cushion. The coating increases tear resistance since it decreases the slippage. It is noted that the claim does not require the insertion of the cord into the cushion, but rather only that it is capable of doing so. Since the cord is thin enough and flexible enough to be inserted into a cushion, it is capable of being inserted. While the reference does not disclose the hardnesses of the core or foam coating, one in the art would appreciate that a foam coating which is intended to be velvety and flexible(Col. 3, ll. 41) would be softer than a material which is intended to be reinforcing(Col. 2, ll. 23) particularly since reinforcing implies that the core is stronger than the foam by itself. Regarding claims 17 and 28, extrusion is considered a hot coating method.(Col. 5, ll. 57)

5. Claims 11, 12, 15, 17, 22-24, 28-32, and 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulte(ZA 9805087A) in view of Esler, and Maruyama. U.S Patent 6,478,382 is considered an English language translation of ZA 9805087A and all column and line numbers refer thereto.

Schulte discloses a flexible shaped strip which serves to secure a cover to a foamed seat cushion having a longitudinal slit into which the strip is applied.(Figures 1 and 2; Abstract; Col. 1, ll. 6-13; Col. 4, ll. 3) The part of the strip containing the slit into which the cover is inserted is provided with an anti-slip means.(Col. 3, ll. 52-57) The reference does not disclose what these anti-slip means are. Esler discloses coating a

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strip used in seats with a foam material to prevent slippage of the strip relative to the material surrounding it.(Col. 2, ll. 2-17; Col. 3, ll. 48-50) Maruyama et al. discloses applying a rubber layer to the outside of a wire which is a strip which secures a cover to a foamed seat cushion.(Col. 2, ll. 4-11; Col. 3, ll. 27-30) Rubber is an anti-slip material and applicant's claim 22 indicates it is considered a plastic material. It would have been obvious to one of ordinary skill in the art at the time the invention was made to coat the shaped strip of Schulte with a material which is anti-slip as shown in Esler since Esler discloses coating a plastic core with a plastic material to prevent slippage of the strip when used in a seat cushion, and since Maruyama et al. discloses it is known to coat strips that perform the same function, namely holding seat covers in seat cushions, with rubber which is an anti-slip material. While the reference does not disclose the hardnesses of the core or anti-slip coating, Esler shows the anti-slip coating is intended to be velvety and flexible(Esler, Col. 3, ll. 41) while the strip is intended to be reinforcing(Esler, Col. 2, ll. 23), clearly suggesting the anti-slip coating is softer than the core. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the anti-slip coating a material which was softer than the core since Esler suggests the coating is softer than the core, and since this would place a softer material in contact with the person sitting in the chair while retaining the strength(hardness) necessary to prevent the strip from breaking by forming the core of a harder material. While the references do not state the anti-slip means increases tear resistance of the strip, Schulte does disclose the anti-slip means improve anchoring of the strip in the channel.(Col. 3, ll. 54-55) Since applicant's claim indicates improved

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tear resistance results in the ability of the strip to resist removal from the cushion and improved anchoring of the strip in the channel as described by Schulte also means it resists removal from the cushion, Schulte is considered to teach increasing the tear resistance of the strip.

Regarding claim 9, the profile of the shaped strip is round.(Figure 1)

Regarding claims 12 and 32, while the references do not disclose the specific hardness of the material, a hardness of 150 is very hard, and one in the art would appreciate that since the foam of Esler was intended to be flexible(Col. 3, ll. 3), it would have a hardness of less than 150.

Regarding claims 17, 28, and 35, Esler discloses extruding the coating, and extrusion is considered a hot coating method.(Col. 4, ll. 25-26; Col. 6, ll. 57; Figure 4)

Regarding claim 22, while Schulte is silent as to the specific material of the anti-slip means, Esler discloses the foam can be made from polyurethane.(Col. 4, ll. 11) Since polyurethane foam was created to replace natural rubber, one in the art would appreciate that it is a rubber-type plastic. Additionally Maruymama shows the use of rubber as an anti-slip coating.

Regarding claims 23, 31 and 37, Schulte discloses the anti-slip means are located in the recesses(30, 32). Since it does not disclose applying the anti-slip means to the raised areas between the recesses, one in the art would appreciate that it was applied only to the recesses.(Col. 3, ll. 52-60)

Regarding claim 30, Schulte discloses the strip having a top surface with a longitudinal slot and longitudinal interlocking members on the side surfaces of the

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strip(14) with recesses(30,32) therebetween. While the reference does not expressly disclose fastening means to holding the fabric in the slot, one in the art would appreciate that some sort of fastening means would be present since the purposes of the strip is for the fabric to be inserted into the slot in the strip and not be removed.

Regarding claim 34, Schulte discloses a longitudinal channel in a seat cushion into which the strip is inserted.(Col. 3, ll. 12-15)

Regarding claim 36, the anti-slip means is applied to the top surface(28) of the shaped strip.(Col. 3, ll. 53-57)

6. Claims 12-14, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 11 above, and further in view of Tolle(U.S Patent 4,057,956).

The references cited above do not disclose the hardness of the anti-slip material. Tolle discloses forming an anti-slip layer on a cable wherein the coating has a hardness of 60-70 so that it will be flexible but hard enough to prevent tearing and wear of the coating during use.(Col. 2, ll. 60-61; Col. 3, ll. 55-61) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the anti-slip layer have a hardness of about 60-70 since this would make it flexible but hard enough to prevent tearing and wear of the coating during use.(Col. 2, ll. 60-61; Col. 3, ll. 55-61)

7. Claims 18, 19, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 11 above, and further in view of Engelson(U.S. Patent 5,095,915).

The references cited above do not disclose how the coating is applied to the strip. Engelson discloses that coatings can be conventionally applied to thin strips by extrusion or dip coating.(Col. 4, ll. 31-37) It would have been obvious to one of ordinary skill in the art at the time the invention was made to use any conventional coating method to apply the anti-slip material to the shaped strips such as extrusion or dip coating since they are conventional methods of applying coatings to thin strips(Col. 4, ll. 31-37).

Regarding claims 25 and 26, while the references do not indicate applying the anti-slip material as flakes or clots, one in the art would appreciate that any conventional coating method could be used to apply the material.

8. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulte, Esler, and Maruyama et al. as applied to claim 11 above, and further in view of Boon et al.(U.S. Patent 4,874,670).

The references cited above do not disclose the coating being an ultraviolet or electron curable material which is cured. One in the art would appreciate that any type of material that would form a relatively soft anti-slip coating could be used. Such materials include rubbers, which should be cured to be usable. Since thermal curing would melt the plastic the rubber is coated on, one in the art would appreciate that a different type of cure such as ultraviolet, which is well-known in the curing arts, would be used in place of a thermal cure for rubber coatings. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use ultraviolet radiation to cure the coating on the shaped strip since this would allow curing of the coating



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without exposing the strip to high temperatures that would degrade the polymer used as the base for the strip and since ultraviolet and electron beam curing are well-known and conventional in general in the bonding arts as curing methods as shown for example by Boon et al. which discloses using ultraviolet and electron beam curable rubbers as coatings.(Col. 2, ll. 3-6, 59-61)

### ***Response to Arguments***

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Esler discloses coating a strip with another layer which prevents slippage of the strip relative to the material surrounding it.

Regarding applicant's argument that the wire of Maruyama is not directly engaged with the foam, the wire performs the same function, i.e. it holds the cover in place. Applicant's claims do not require the surface of the wire to directly contact the seat cushion. As shown in Maruyama, a cord can be used to secure a covering to a foam cushion which has a longitudinal passage therein without directly contacting the

foam. The reference shows there are alternate methods of performing the same function, securing a cover to a cushion, which meet the claim limitations.

In response to applicant's argument that Esler, Maruyama, and Tolle are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the reference is both in applicant's field of endeavor, the making of seat cushions, and reasonably pertinent to applicant's problem, namely the slippage between components in a seat cushion. The slippage in Esler is relative to the fabric comprising the cover and not the seat cushion itself, but it is clearly pertinent since it shows how others also manufacturing the same product dealt with the same type of problem. Regarding Maruyama, the reference is in applicant's general field of endeavor, the making of seat cushion and applying of covers thereto. Regarding Tolle, the reference is reasonably pertinent to applicant's problem, the prevention of slip between two materials.

It is respectfully submitted that counsel's argument at the bottom of page 10 is not commensurate in scope with the claim's recited limitation of "...a plastic material softer than the plastic material of the strip." Clearly the foam layer is softer than the fibrous inner layer. Moreover, the recited plastic material reads on the foam layer. There is nothing in the claim positively requiring the softness of the plastic material to refer to the composition of the plastic material rather than its structural properties.

### **Conclusion**

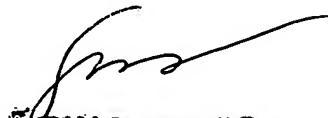
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara J. Musser whose telephone number is (571) 272-1222. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Dunn can be reached on (571)-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



BJM

  
**GUOCHUAN YAO**  
**PATENT EXAMINER**